

Title (en)  
Method of manufacturing of a drive shaft made of fiber reinforced composite material

Title (de)  
Herstellungsverfahren einer Antriebswelle aus fiberverstärktem Verbundwerkstoff

Title (fr)  
Procédé de fabrication d'un arbre menant en matériau composite renforcé par fibres

Publication  
**EP 0668446 B1 20020626 (EN)**

Application  
**EP 95102174 A 19950216**

Priority  
JP 2065094 A 19940217

Abstract (en)  
[origin: EP0668446A1] Disclosed is a shaft having a body section (2) and a yoke section (3) formed with at least one end of the body section (2). A hole is formed in the yoke section (3). The body section (2) and yoke section (3) are integrally made of a fiber reinforced composite material including a filament (F) and a plastic adhered to the filament. The shaft comprises a plurality of shaft fiber layers forming the body section (2). Each shaft fiber layer includes a plurality of shaft fiber elements being arranged at predetermined intervals. A plurality of yoke fiber layers form the yoke section (3). Each yoke fiber layer includes a plurality of yoke fiber elements. Each yoke fiber element has ends connected to each shaft fiber element. Each yoke fiber element has either a closed loop arrangement (CLA) or an open loop arrangement (OLA). The CLA is defined by the yoke fiber elements forming closed loops around the hole. The OLA is defined by the yoke fiber elements forming open loops around the hole. <IMAGE>

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**F16C 3/02**

IPC 8 full level  
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CPC (source: EP US)  
**F16C 3/026** (2013.01 - EP US); **F16C 2326/06** (2013.01 - EP US); **F16D 3/387** (2013.01 - EP)

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US 4681556 A 19870721 - PALMER BERTRAM J [GB]

Cited by  
WO2022132093A1; EP2788252A4; EP3809002A1; DE102012106117B4; FR2962935A1; DE102017221235A1; US9259878B2; US11391318B2; US8690692B2; EP3382220A1; EP4103421A4; GB2339265A; EP2476924A1; FR2970533A1; WO2012017164A1; WO2014005838A1; US11453180B2; US10487869B2; WO2012152891A1; WO2014005584A1; EP3081822A1; US10280969B2

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